



The GARzette

The Official Newsletter of the Gwinnett Amateur Radio Society
October 2015 <http://www.gars.org/> Volume 24, Issue 10



LIGHTNING



How to deal with it—at our next meeting!

Message from the President

At the risk of sounding redundant, GARS has had a busy schedule this year and it's not over yet! Our first participation in a VHF contest is now under our belt. We had a great turnout and while the number of contacts was not astounding we all had a great time and learned what it takes to do an even better job at the next event. Rain and cool weather made the DC-3 setup a challenge but GARS members were there in force and many contacts were logged. Mechanical problems and a low ceiling prevented the DC-3 from actually "flying in" but again a good time was had. As I am typing this note the Maker Faire is going on in Decatur. Rain has put a damper on this event but I hope you were able to make it out. Be sure you volunteer and participate in future events such as these. This is the heart of what GARS is all about... it's not just meetings.

And speaking of meetings: November is one of our most fun and interesting meetings of the year. It's the "Massive Homebrew Show & Tell". Have you built something special you would like to show other members? This is the time to bring it in and show it off. It can be something as simple as a rig interface or a more complicated project you have built. This meeting is cram-packed with ideas that can help make you a better ham. Try to keep your presentations brief so we can get everybody in. There will be time after the meeting to browse and discuss details with your fellow members. There is still time to come up with your idea so don't be bashful and get to work.

With fall setting in, now is a great time to brace for the upcoming winter. Metro Atlanta is blessed in that we don't get some of the devastating weather that our northern neighbors get, but as you know, when bad weather strikes it can bring the city to a screeching halt. Aside



"...Even a small lawnmower tractor battery can keep an HT running for days connected to an external antenna."

from preparing your home and vehicles for cold weather, make sure you have some sort of emergency power available for your communications gear. It doesn't have to be complicated and expensive. A good 12v automotive battery, a method for keeping it charged (and vented to the outside), and a simple wiring harness to power your radios is all it takes.

Even a small lawnmower tractor battery can keep an HT running for days connected to an external antenna. If you want to learn the most about emergency communications join

Gwinnett ARES and be in good company.

Thanks again for all your support of GARS events and I'm looking forward to working with (and having fun with) all of you soon.

73s,

Rick, **N4XYX**

"It is not the class of license the Amateur holds, but the class of the Amateur that holds the license."

[Author Unknown]



GARS October Meeting

“Lightning Protection and Grounding”

by AI4UD, Greg Abernathy

<http://www.arrl.org/lightning-protection>

Tuesday, October 13, 2015

Start Time: 7:00 pm

Come Early—get a good seat!

Sports Aviation Complex - Hangar 1

690 Airport Road

Lawrenceville, GA 30045

[Directions](#)

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GARS Communications

2 Meter Repeater

147.075(+) MHz
82.5 PL Tone

APRS

144.390 -- 1200 Baud
W4GR

D-Star

WD4STR
145.060 + (1.4 MHz)
440.550 + (5 MHz)

2 Meter Repeater

147.255(+) MHz
107.2 PL Tone

6 Meter Repeater

53.110 (-1 MHz)
No PL tone

70 Cm Repeaters

444.525(+) MHz
82.5 PL Tone
442.100(+)
100 PL Tone

**Don't forget
to support our
advertisers at the
back of the
GARzette.**

The *GARzette* is the official monthly newsletter of the Gwinnett Amateur Radio Society, serving its members and other persons interested in the advancement of the Amateur Radio art.

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If possible, bring your articles to the monthly meeting in Microsoft Word or rich text (.rtf) or text or HTML format or by e-mail to n4gyn@arrl.net. Artwork can be accepted in most any graphics format and can be submitted via e-mail to the same address. Alternate means of submittal can be arranged when necessary.

In keeping with the Amateur Radio spirit, permission is hereby granted for the reproduction of The *GARzette* articles by other Amateur Radio club newsletters provided that proper credit is given to the individual author and *The GARzette*.

The *GARzette* is published each month with the assistance of Norm Schklar, WA4ZXV who prints copies for distribution at meetings, etc. and Dave Bruse, W4DTR, who distributes the news letter electronically.

Deadline for submissions is the 28th of each month for inclusion in the following month's issue.

For additional information view our Website at: <http://www.gars.org>

Newsletter Editor: Ray Bailey—N4GYN
770-689-6620 or editor@gars.org



Member QRZ Pages

For a few months we will be featuring the QRZ page of various members of GARS.

This month we are featuring the QRZ page of :

AB4OK - Lije Sims

When you click on the link below you will find this picture of his “shack”.

<http://qrz.com/lookup/ab4ok>

Read his notes and get to know him better.
You'll be glad you did.



Here is an excerpt from his page:

“I live with my wife, two children, a three legged cat and a mini pig. My interest in HAM radios began in 1970, when I began studying for a novice license. Being a fourteen year old boy at that time...”

Watch for another featured GARS member QRZ page in next month's GARzette!

Ray Bailey, N4GYN

The Radio Amateur's Code

The Radio Amateur is:

CONSIDERATE...He/[She] never knowingly operates in such a way as to lessen the pleasure of others.

LOYAL...He/[She] offers loyalty, encouragement and support to other amateurs, local clubs, the IARU Radio Society in his/[her] country, through which Amateur Radio in his/[her] country is represented nationally and internationally.

PROGRESSIVE...He/[She] keeps his/[her] station up to date. It is well-built and efficient. His/[Her] operating practice is above reproach.

FRIENDLY...He/[She] operates slowly and patiently when requested; offers friendly advice and counsel to beginners; kind assistance, cooperation and consideration for the interests of others. These are the marks of the amateur spirit.

BALANCED...Radio is a hobby, never interfering with duties owed to family, job, school or community.

PATRIOTIC...His/[Her] station and skills are always ready for service to country and community.

- adapted from the original Amateur's Code, written by Paul M. Segal, W9EEA, in 1928

VIA ARRL.ORG [Ed.]



Bob Gerzoff—WK2Y being given the Certificate of Appreciation for his program:

“The SARK 110 Antenna Analyzer”

HAM RADIO
RULES

VHF/UHF Contest



GARS VHF/UHF Contest September 12-14



It was a beautiful day at Bogan Park for the contest. When I arrived at the Park late Saturday morning I parked at the bottom of the hill so I could take the recommended way up the sidewalk to get to the site. I could see 4 EZ-UP's and 3 antennas on top of masts about 20 feet high. As I made the trek up the hill I could see the stations set up near the antennas. One station was set up for 6 Meters, one for 2 Meters and one for 440 MHz. There were lots of GARS members there that day, who were talking and waiting for the contest to start at 1400 local.

Eventually there was some pizza brought for the people who helped set up the station. I do remember David KA4KKF giving Norm WA4ZXV an earful for pulling off the road and parking on the grass to make the food delivery. I can't blame Norm for not wanting to carry the pizza up the hill. Since I didn't help set up, I didn't have any pizza at first. That was until Ray N4GYN called and said he couldn't make it back to the Park, and he gave permission for someone else to have his slice of pizza. Therefore I had Ray's permission to finally have a slice...

After the contest started, I first started operating the 440 station. I started a nice conversation with the owner of the station (I think her name was Pam). So far she only had a few stations in the log. She was willing to let me operate since there wasn't much happening on 440.



I was not experienced in operating in these bands, beyond using the repeater and simplex frequencies on my HT. Each station had a detailed band plan available which showed the calling frequencies and the range you could use for each mode. We mostly used SSB for our phone contacts in this contest. I tried FM but I heard nothing. I certainly learned a lot about operating in the VHF and UHF bands that day. The logging software was the same as what we use at Field Day (I almost said 8A GA once or twice).



The antennas did not have the usual rotors, but each station had arrows pointing North made from a few sections of mast poles for reference. I recruited some hams to turn the beam for me after I called CQ a bunch of times.

After a while I realized I wanted to save my voice, but the rig I was using could not record my voice. I improvised by recording a CQ message on my smartphone, then I would play it back and hit PTT on the mic; that way I would let the smartphone do the work for me.

(Continued on page 6)

VHF/UHF Contest

(Continued from page 5)

The required exchange for the QSO was your Maidenhead grid (we were in grid EM84). The only contact I made on 440 was with Jeff AB4HF who was calling from his QTH at Sugar Hill (although it was a different grid than where we were at). Turns out we worked him on all bands. Later I found out you can't just take an HT and make contacts and claim to be a new contact in this contest, oh well. It was getting further into the afternoon, so I eventually made it over to the 6 meter station that Rick, N4XYY, had set up. He had his rig in a nice, well organized go kit that could run off of generator or battery power. I didn't need to use my special CQ message on my smartphone, he had recorded a nice message on his rig.



I initially had better luck with a few contacts here and there on adjacent grids. Eventually I would hear some faint contest QSO's, and I could have sworn I heard an exchange with grid EN30. That was different than the other grids I had heard up until then. We were right next to Bogan Rd so there was some traffic noise to contend with; fortunately there were headphones available so I could hear better. I grabbed a grid map from another station to try and figure out where this guy could be; it turns out EN30 is in Iowa. That told me the band was finally opening up to somewhere. I had a human rotor point the log periodic towards north, then I could hear other signals. I eventually made a contact with someone I believe in grid FN43, which is shared between Maine and New Hampshire! Now we're cooking... (I never did hear EN30 again...)

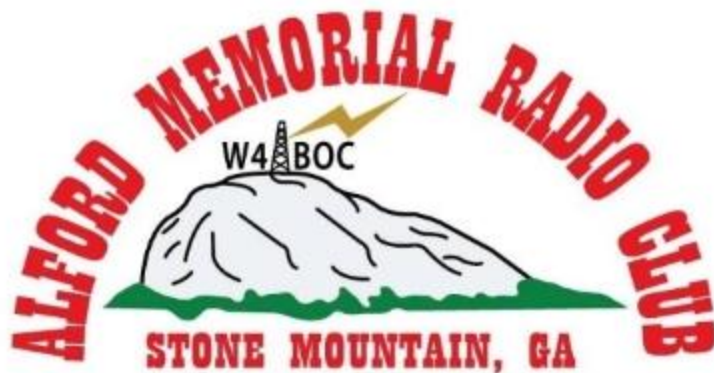
Unfortunately around this time it was getting late and the stations were being dismantled. Eventually they took down the EZ-UP above me, but I kept working and logging other stations from the Northeast and New England. I was just about ready to work a station in a new grid in New York when the generator was shut off. Oh well, so much for that last contact.

Several of us, including me, helped Rick take apart his log periodic. He had obviously done this many times before, he had it down to a science. He didn't completely take it apart, just broke it down enough so he could get it safely in his car.

Bill Eggers, WB2RIS



What's Happening?



2015 American Radio Relay League Georgia Section Convention

Stone Mountain Hamfest

November 7 & 8, 2015, Gwinnett County Fairgrounds

Vendor Hours: Friday November 6, Setup 12 Noon to 9 PM
Saturday 6:30 am to 8 am

Open to Public: Saturday 8:00 am to 4:00 pm
Sunday 8:00 am to 2:00 pm

Dear Friends:

Georgia's best and largest Hamfest offers everything you are used to, and more!! Since this is the *largest and best* Hamfest in the Atlanta area, and the last one for the year, our tables and spaces are always in great demand. We are now accepting registrations and deposits for this show.

Don't forget the "Commercial Tailgating" section for those vendors with tents, trailers, and motor homes needing more space and electrical power. These are the only Bone Yard spaces that can be reserved in advance, so don't wait. Also the indoor Flea Market has only about 100 tables, so reserve yours today if you plan to be inside.

You may register for tickets, Bone Yard spaces, and/or tables by mail. Please email us for the form. If you would like to see a table layout diagram or need more information, visit our [website](#) or drop us an [email](#).

Last year was another record year. Good weather and popular forums contribute to our success and the interest the Ham Community shows in supporting our Hamfest.

When you are registered, you will receive a confirmation in October giving you your tentative table assignments. These are subject to change, so please remember to check in with a Club Member before beginning your set up. We have camper sites available and are working with local hotels to provide special rates for your convenience. Please check the website often for the latest information.

If you wish to contact us, you may:

1. Send us e-mail at:
Hamfest@stonemountainhamfest.com
or
2. Leave us a voice message toll free at
1-855-ST-MTN-HF (1-855-786-8643)

Since we are all volunteers, do not expect to talk to a live human when you call. We check these messages and respond after hours or generally by the next day. However, we **WILL** respond promptly to whatever method you use to contact us.

Your Flea Market table or Commercial Tailgating registration includes an admission ticket for each table or space you reserve (for example, 5 tables equals 5 admission tickets). Additional tickets may be purchased in advance for \$6 per person. Regular Bone Yard spaces require the purchase of an admission ticket separately.

Returning for 2014! We will be accepting registration payments by credit card: our website will have all the information on it soon.

We look forward to seeing you there. **Please register early** and let us know if you have questions.

Chris KS4MM Hamfest Chairman
and the whole Alford Memorial Radio Club

What's Happening? (continued)

HAMJAM 2015



Jamie Dupree—NS3T

Presented by North Fulton Amateur Radio League
Endorsed by Southeastern DX Club

Saturday, November 14, 2015 8:00am -- 1:00pm

Talk in:
145.47 (-) PL 100.0Hz 224.620 (-) PL 100.0Hz
444.475 (+) PL 100.0Hz 927.0125 (-) PL 146.2
On-site questions: 146.52



Mike Corey-KI1U

HamJam 2015 will take place on Saturday, November 14th at the Metropolitan Club, 5895 Windward Pkwy, Alpharetta, GA.

NFARL and our sponsors are pleased to be able to present the event as a public service to the amateur radio community. We hope you will be able to attend and enjoy a morning of visiting with fellow hams, listening to and interacting with our speakers, and the potential to win one of our raffle prizes.

The event is open to all hams and admission is **FREE** thanks to the generosity of our sponsors ... and your generosity in purchasing raffle tickets.

Speakers

This year's speakers include **Jamie Dupree, NS3T** of Cox Radio, **Mike Corey, KI1U** of ARRL, and one other speaker to be announced soon!

Jamie Dupree, NS3T

Jamie Dupree, NS3T is the Radio News Director of the Washington Bureau of the Cox Media Group and writes the Washington Insider blog.

A native of Washington, D.C., Jamie has covered Congress and politics in the nation's capital since the Reagan Administration, and has been reporting for Cox since 1989. Jamie has covered 11 national political conventions, with his first being the 1988 Democratic Convention in Atlanta.

Mike Corey, KI1U

Mike Corey, KI1U, joined the ARRL HQ staff in April 2010 as Emergency Preparedness Manager. Prior to joining League staff he worked in law enforcement in Indiana and Mississippi. He has also served as an emergency management volunteer, disaster response volunteer, reserve police officer, law enforcement academy and public safety instructor, and on emergency operations center staff. Mike has been licensed since 1988 and holds an Amateur Extra class license.

Raffle

A number of wonderful prizes have been donated by our sponsors and will be raffled off to help us offset expenses and hopefully have funds left over for our youth programs and scholarships.

Click [here](#) to view the Raffle Rules.

Raffle tickets will be available soon for a \$5 donation per ticket or (5 tickets for \$20). You may purchase raffle tickets at our ticket sales tables at HamJam until the mid-morning break.

You do not have to be present to win the top prizes. You or your proxy must be present to be awarded one of the other raffle prizes. ([See raffle rule #9.](#)) Please talk this up -- invite your ham and non-ham friends to this unique event.

It promises to be one of the southeast ham radio highlights of the year!!!

More Happenings

GARS participates in JAMBOREE ON THE AIR (JOTA)

This is **not** just for Boy scouts. We welcome Cub Scouts, Boy Scouts, Venturing Scouts, Girl Scouts and anyone who wants to learn about Amateur Radio. We will be offering a Radio Merit Badge Class at JOTA. Additionally GARS member Jeff Cutchins, AB4HF will be teaching the Bugling Merit Badge.

The 58th ANNUAL JAMBOREE ON THE AIR (JOTA)
Saturday, October 17th from 9:00 AM – 3:30 PM
Location: VFW Post 5255, 368 Grayson Highway, Lawrenceville



[Sign Up for Radio Merit Badge](#)

[Sign Up for Bugling Merit Badge](#)

For details see our flyer at: [JOTA-2015.pdf](#) or contact [Steve Back](#).



VHF PROPAGATION MAP

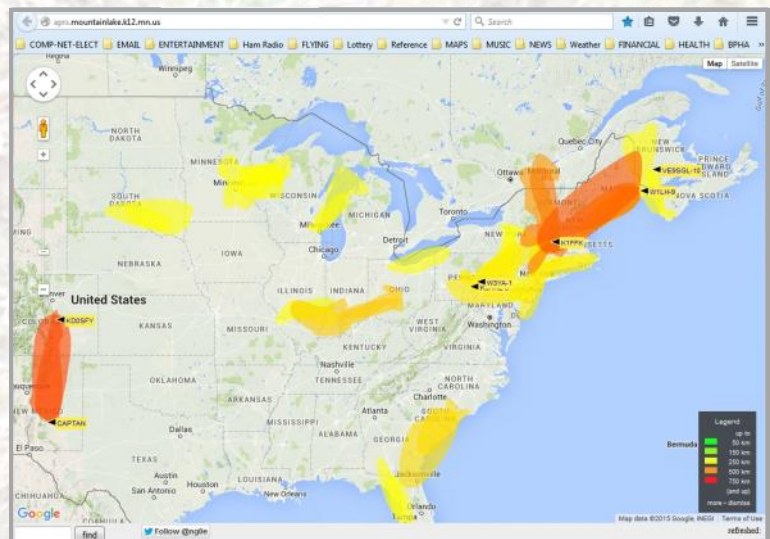
Among the many tools we use during VHF-UHF contesting, here is a map the operators at W4NH reference periodically during an entire contest. It is a real-time map of APRS pathing to show you where the enhanced paths are at any given time.

While this map is only representative of the 144.39 MHz paths, we find that some enhanced paths for 222 MHz and 432 MHz tend to coincide. This map is dynamic and changes every few minutes.

By mousing over the enhancement balloons, you will see the stations involved in the paths being shown.

<http://aprs.mountainlake.k12.mn.us/>

Ron
WW8RR
432 Band captain, W4NH testers



SOTA - Summits On The Air



Summits On The Air

PORTABLE POWER

A power source is a requirement for any successful activation. In this month's column we'll look at some popular options for powering SOTA activations. Although the occasional activator will use a kilowatt amp, this article will focus on power for QRP portable rigs.

Step Away From the Car Sir

SOTA rules state:

- *Operations must not be in, or in the close vicinity of, a motor vehicle.*
- *All equipment must be operated from a portable power source (batteries, solar cells, etc).*

Consequently, most activators carry some kind of battery.

For some activators, a walk across a parking lot is an expedition. Others sniff with disdain at anything less than 5 miles with 2000' of elevation gain. If you're lugging your gear across a parking lot, you could haul your car battery across the lot in your grandchild's wagon; if you're trekking up Denali, grams count!

The Heavy End

Many hams have a SLAB (Sealed Lead Acid Battery) for field day. This is the technology used in your car battery. You can use your car battery, but it is big and heavy and you need to be sure not to discharge it so far that you can't start your car. Gel cells are a common alternative to SLAB. For activator use, they are similar to SLAB, except they need not be kept "sunny side up." They may require special chargers. The removal of the right-side-up requirement is helpful, but they are heavy enough that you won't often carry one on the trail.

- Down-side: High weight-to-power ratio.
- Up-side: Simple technology; inexpensive.

Low-tech, Middle-weight

Disposable alkaline batteries are a popular choice. If you put enough of them in series and/or parallel, and you can meet most any power requirement. Some portable rigs include a battery holder for AA cells.

- Down-side: Expensive over time; disposal of used cells.
- Up-side: You can buy them anywhere; low-tech; reliable.

Disposable lithium cells are a similar alternative. They're a little lighter, more expensive, and have slightly different discharge characteristics. Since they retain their charge for up to a decade, they make a good backup power source. I often carry a set of 8 AA lithium cells as a "plan-B" power source.

For my first two years as an activator, I used rechargeable NiMh (Nickel-metal Hydride) cells. These have a similar form factor to disposable alkaline cells. They are rechargeable 100s of times and do not exhibit the 'memory effect' of NiCad. They must be charged in a NiMh-compatible charger. Some varieties won't hold a charge for more than a week or two, but there are long-life varieties that will hold a charge for a year or so.

- Down-side: Slightly lower voltage than alkalines.
- Up-side: Simple charging protocol; inexpensive.

I use a KX3. It is designed to operate at 5 watts with 8 internal NiMh cells, but it will operate at 12 watts if I feed it 14-15 volts. This requires 11 NiMh cells, so I made an [custom external battery holder](#).

High-tech, Lightweight

The cool kids are all using rechargeable lithium batteries. These pack a tremendous amount of power into a small, light-

(Continued on page 11)

SOTA - PORTABLE POWER (Continued)

(Continued from page 10)

weight package. These are very popular with gram counters. Some of these are physically about the size of an AA cell, but since they are 3 volts, please don't put them into a device designed for AA batteries!

There are several variants of lithium batteries, with unique characteristics. Collectively, they are known as "lithium ion." The most popular varieties are Li-Po (lithium polymer) and LiFePO₄ (lithium iron phosphate). (LiFePO₄ are also referred to as 'LiFePo' or 'LFP.') They require special chargers -- each variety requires a different charging protocol. Don't mix and match!

Up-side (all varieties):

- Low weight-to-power ratio.
- Low volume-to-power ratio.
- Ability to deliver high current.

Down-side (Li-Po):

- Power-to-cost ratio is expensive.
- Easy to ruin with over-charge or over-discharge.
- Short-circuit may lead to fire.
- Crush/penetration hazard.
- Concern over excessive fire risk.

Down-side (LiFePO₄):

- Power-to-cost ratio is expensive.
- Easy to ruin with over-charge or over-discharge.
- Short-circuit can lead to fire.

Li-Po and LiFePO₄ are popular with RC helicopter pilots, due to their light weight and ability to deliver an 'insanely high' current. If you short them, expect a fire. With a low internal resistance, they'll dump all that power into the short in very short order.

The chemistry of LiFePO₄ make them substantially less likely to combust than Li-Po. If you short them, the high heat from all that power is still a risk, but these are much safer than Li-Po.

Note that the cells in a lithium ion battery pack should be managed individually. Each cell will have slightly different capacity. Over-discharging *any* cell may ruin the battery. Over-charging *any* cell may ruin the battery or create a fire hazard. You will need a battery pack and a charger that support 'balanced' charging. This will allow the charger to charge each cell individually, rather than charging the battery as a whole.

Low-tech, Extremely Lightweight

If you want to go really lightweight, consider operating at lower power. Less power intrinsically means less weight. Consider the Mountain Topper (a.k.a MTR, a.k.a. AT-Sprint) radios designed by Steve Weber (KD1JV). These are sometimes [sold assembled by LNR](#), occasionally offered in kit form via a [Yahoo mailing list](#), and turn up on eBay from time to time.

These will operate for many, many QSOs on a [standard 9-volt battery](#). A single alkaline 9-volt battery is reportedly good for more than an hour of activating.

Down-side:

- Must learn CW.
- About 3 watts maximum output.

Up-side:

- Lightest option.
- Simple, low-tech reliability.

(Continued on page 20)

The Amateur Radio Relay League

Join the ARRL?

By Mike McCardel, KC8YLD



Why we all should spend \$39 of our hard earned money and join the ARRL. Actually a lot of things come to mind. MVARC has a 50 year affiliation with the ARRL yet just over half of our members hold membership in the ARRL.

Yes QST is one of the longest standing and informative magazines on Amateur Radio, but that's not why we all should join. If you're a member you have online access to every article that has appeared in QST between December 1915 and December 2004. Members also have online access to QEX from 1968 to the present, Ham Radio between 1968 through 1990, and NJC from 1973 to the present. This still is not the reason we all should be members. Other membership benefits include Emergency Communication Services, Technical and Regulatory Information Services, Publication Specials and on-line course discounts, Operating Awards, Ham Radio Equipment Insurance Plan Available, Outgoing Foreign QSL Service, a voice in the affairs of ARRL and ham radio through locally appointed volunteers, and the list goes on. These alone are reasons enough to become an ARRL member but not the reason we all should be members.

So what is the reason? SPECTRUM! We have spectrum. One of the reasons the hobby-service is still available for us right now is due to the efforts of Hiram Percy Maxim (SK W1AW) and the ARRL which he organized. During WWI when the Navy controlled all radio activity. After the war they really didn't see the need to give any of it back. Maxim and the ARRL were successful in convincing the US Government of the importance of the Amateur Radio Service. Recently the ARRL has been fighting a successful battle to eliminate the threat of interference due to BPL. They were integral in moving international broadcasting stations from the heart of the 40 meter band. Full implementation of this begins March 29, 2009. Recently the FCC had issued an experimental license to the Digital Aurora Radio Technologies (DART) for broadcasting up to 660 KHz of digital emission with a 20 kHz bandwidth to operate in the 7.1 to 7.3 Mhz band. The ARRL had to remind the FCC that this was an obvious error and the FCC reassigned DART to a different spectrum allocation. There are more examples, but the bottom line is that no other organization in the United States stands up for all Amateur Radio Operators like the ARRL does. No one. None has protected our spectrum like the ARRL. Individually we just don't have the political pool, but as a membership 110,000 strong the ARRL has clout. Okay, you may say, but a half million U.S. Hams aren't members or you don't agree with everything the ARRL does. My argument is as members you would BE the ARRL and would have a say in what direction the ARRL takes.

One thing we all share is that our precious spectrum is always under attack. This may be especially true in the present economic climate. After all we talk nightly on what has been perceived as millions of dollars of bandwidth. Protect your hobby and spend what comes to 11 cents a day to join the ARRL. Then we can be sure we will see each other on down the log.

E. Michael McCardel, KC8YLD

V.P. for Educational Relations, AMSAT-NA
Former Affiliated Club Coordinator for Ohio Section

This was submitted to GARS Yahoo group earlier. I have used it here to reach an even larger audience. [Ed.]

Historical Information

In World War II, dozens of radio operators in Scituate Rhode Island dialed into enemy conversations worldwide.

Reception was incredible: They could pick up tank-to-tank communications among Rommel's Afrika Korps.

As you read through this article keep in mind that the eavesdropping was being done with late 1930's to early 1940's technology. Consider how much more effective today's technology can be. Be careful about what you say in the clear on our frequencies. An email address, a phone number or other PII (Personal Identifiable Information) may be getting written down in some other part of the world and used for unethical purposes.

By Tom Mooney Providence Journal Staff Writer Aug. 8, 2015

Seventy years ago this week Rhode Islanders swarmed into the streets with other joyous Americans celebrating the end of World War II. It would be three more months before the world learned of Rhode Island's top-secret role in defeating Germany and Japan. It was a tale of espionage, now virtually forgotten, centered in, of all places, an old farmhouse in Scituate.

The clandestine mission that went on up there on Chopmist Hill from 1941 through 1945 not only helped defeat the enemy, historians say, but brought to Rhode Island the representatives of a new organization called the United Nations, looking for a headquarters location.

Incredible, perhaps. But true.

"They even had plans to build an airstrip if the United Nations ended up here," says Scituate Town Historian Shirley Arnold. "Can you imagine that? In Scituate?" No one knows the story anymore, she says. "All the old-timers are gone."

There was nothing remarkable to see on Chopmist Hill in 1940 when, a year before the Japanese would attack Pearl Harbor and bring America into the war, a Boston radio technician by the name of Thomas B. Cave drove up Darby Road. England was already at war with Germany, and Cave knew it was inevitable that the United States, already fortifying Great Britain with supplies and weaponry, would enter, too. Cave worked for the Intelligence Division of the Federal Communications Commission, charged with finding a hilltop in southern New England that could serve as one of several listening posts to detect radio transmissions from German spies in the United States.

What he discovered up at William Suddard's 183-acre farm was nothing short of miraculous. Because of some geographic and atmospheric anomalies, Cave reported he could clearly intercept radio transmissions coming from Europe—

even South America.

As a Providence Journal story revealed after the war, military officials were initially skeptical. They wanted Cave to prove his remarkable claims that from Chopmist Hill he could pinpoint the location *of any radio transmission in the country within 15 minutes*. The Army set up a test. Without telling the FCC, it began broadcasting a signal from the Pentagon. From atop the 730-foot hill in the rural corner of Scituate, it took Cave all of seven minutes to zero in on the signal's origin.

In March 1941, the Suddards obligingly moved out of their 14-room farmhouse, leasing the property to the FCC. Workers set off erecting scores of telephone poles across the property, purposely sinking them deep to keep them below the tree line. They strung 85,000 feet of antenna wire — the equivalent of 16 miles — around the poles and wired it into the house. They fenced off the perimeter, erected floodlights and established armed patrols to keep people out. They filled six rooms with banks of sensitive radio receivers, transmitters and directional finders.

Then the FCC turned loose a 40-member spy team of men and women to listen in on the world — although none of them knew the full extent of the information they were cultivating. The interceptors kept tabs on more than 400 different enemy radio transmitting stations broadcasting on any given day. They ferreted out secret low frequency transmissions hidden under the beams of commercial radio stations abroad. Much of what they intercepted were coded messages that were then recorded and sent electronically to Washington's "black chamber" for decoding.

Shaping the war

The Chopmist Hill listening post soon became the largest and most successful of a nationwide network of 13 similar installations. Its ability to eavesdrop on German radio transmissions in North Africa, for instance, was so precise that technicians could actually listen in on tank-to-tank communications within Field Marshal Erwin Rommel's infamous Afrika Korps. (Note: *The transmitters in German tanks generally put out about 10 to 25 watts AM.*) The Germans' battlefield strategy was then relayed to the British, who under Field Marshall Bernard Montgomery eventually defeated Rommel at El Alamein.

The Chopmist station is also credited with saving the Queen Mary, the pride of England's maritime fleet, as it was about to sail with 14,000 troops from Rio de Janeiro, Brazil, to Australia. The station intercepted orders from Germany to the Nazi's submarine wolf pack operating in the south Atlantic to

(Continued on page 14)

Historical Information

(Continued from page 13)

sink the ship. The radio station alerted the British, who ordered the ship to change course.

Cave, who supervised the Chopmist Hill station, told The Journal in November 1945 that virtually all the wartime messages sent by German spies working in the United States were intercepted in Scituate. *Often, those German spies were allowed to continue operating so counterintelligence officers could run down their sources of information.* One of Scituate station's most important jobs was to intercept German weather reports from Central Europe. The reports, broadcast at a frequency undetectable in England, flowed easily across the Atlantic to Chopmist Hill. The information proved vital for British bombing raids over Germany.

Occasionally the station assisted in air and sea rescue operations. On one occasion a plane carrying actress Kay Francis got lost off the coast of Florida en route home from a USO tour. No other radio installation on the East Coast had picked up the pilot's distress calls, but the Chopmist Hill station did, guiding the plane home safely.

In 1981, George Sterling, who had been the FCC commissioner during the war, told a Providence Journal reporter that he never understood why the United States was caught by surprise in the Dec. 7, 1941, attack on Pearl Harbor since the Chopmist Hill listening station had for months been intercepting Japanese messages in the Pacific indicating an impending attack.

Once war broke out, the station thwarted Japanese attempts to bomb the United States using unmanned hot-air balloons laden with explosives. The Japanese had placed radio transmitters on the balloons to track them as they rode the jet stream across the Pacific in the hope they reached the West Coast of America. Many did, and the Scituate eavesdroppers heard the balloon signals. They relayed the information to Washington.

U.S. fighter planes intercepted and destroyed the balloons.

Germany surrendered on May 7, 1945, a week after Hitler committed suicide in a bunker in Berlin. The Japanese agreed to surrender on Aug. 14, 1945, five days after the U.S. dropped a second atomic bomb, on Nagasaki.

UN takes a look

The remarkable radio capabilities of Chopmist Hill captured world attention after the war when, in November 1945, the FCC permitted a Providence Journal reporter to visit the monitoring station. Two months after her story ran, seven inspectors from the United Nations Organization were climbing an icy fire lookout tower on Chopmist Hill and scanning the rural landscape below for what might become their new headquarters.

The Jan. 26, 1946, issue of The Providence Journal carried the lead headline: "Chopmist Hill District is rated One of Top Potential Locations for UNO Quarters by Committee." The story described how inspectors were seriously considering the site as its headquarters because of area's unmatched capability to reach every corner of the globe by radio.

"This is a possible site," Dr. Stoyan Gavrilovic, of the Balkans and chairman of the inspection committee, told reporters during the tour. "It meets most of the technical points. It is good." During the tour the inspectors went into a room in the Suddard farmhouse where on one bank of *radio equipment signs hung listing the cities of Lisbon, Madrid and Cairo* — the cities the radios were tuned to.

One of the inspectors asked Cave, directing the tour, what was the range of the radio station? "Well, Sydney, Australia," replied Cave. "That's about the farthest place there is." The inspectors said they were also looking for a wide tract of land to build an airport as well as a headquarters. Cave said the site offered about 50 square miles of property spanning Scituate, Foster and Gloucester that could be available, although about 1,000 people would have to be relocated.

The inspectors were in town for only a couple of days before heading off to inspect possible sites around Worcester and Boston. In the end, the United Nations officials settled on New York City after John D. Rockefeller Jr. offered them \$8.5 million to purchase a six-block tract of land along the East River.

Today the Suddard house still stands behind the same ornate stone wall it did more than 70 years ago. But the hill around it, once mostly pasture and scrub, is covered with tall trees and dotted with new homes. The house, privately owned again, reveals few clues to what happened there the last time the world went to war, save for a tall, thin radio tower in the yard, now covered in ivy, reaching for the clouds.

Courtesy of "Radio Signals",
the newsletter of Dickson County, TN, ARC

RADIO SIGNALS
WC4DC

<http://www.qsl.net/dicksonarc/>

GARS Membership Page

New GARS Members in September

Gregory Kiker (KM4NIN)

New Members: 1

**Total Members as of October 1, 2015
282**

**Join us for our weekly
breakfast gathering at
7:30 AM most Saturdays
at**

**Golden Corral
2155 Riverside Parkway
Lawrenceville, GA 30043**

([Directions](#))

**The following members are
celebrating birthdays
in October:**

**HAPPY BIRTHDAY!!
From All of Us at GARS**

**Laurence Andrus (KB4LWT)
Sheridan Bailey (N4GYN)
Scott Brown (KD4YDD)
Dale Burns (KI4MZO)
Charles Corriveau (K4YDB)
Ken Edwards (WA4SQM)
Charles Eiland (WA4RVO)
Paul Farley (K5PJF)
Xavier Hunter (KK4QCD)
Becah Jubon (W3BEC)
Wilfred Kirk (KM4HZO)
Daniel Lehr (N8KCM)
Charles Martin (KK4QCY)
Vaden McDonald (NN4K)
Fred Murphy (KG4VTF)
Vance Oakes (K4VLO)
James Perry (KM4JKQ)
Cathy Pierce (K1YMW)
Harold Prosser (KK1B)
Robert (Bob) Pursley (WD4KQQ)
Giles Roberts
Allison Sullivan (KK4VLR)
Matthew Thiry (KM4KAE)
Kent Thompson (W4PBX)
Michael Weathers (ND4V)**

GARS MEMBERSHIP

Your current GARS membership status is shown in the monthly newsletter e-mail towards the bottom of the message.

To become a GARS member, or to renew your GARS membership, please visit our website—<http://www.gars.org>

To make changes to your GARS membership (moved, new e-mail address, new phone number, etc.), please e-mail the Membership Committee - membership@gars.org

You can **renew or update** your Amateur Radio license information with the FCC at their website for free <http://wireless.fcc.gov/uls/index.htm?job=home>

To update your ARRL information, please visit their website - <http://www.arrl.org>

Membership Chair: Karen Albritton, KI4HPP
Committee Members: Richard Atkin, KJ4ZTY, Dave Bruse, W4DTR

Net Managers Corner

Monday Night 2 Meter “Want, Swap, Sell, and Information Net”

GARS NEEDS MEMBERS TO SERVE AS NET CONTROLLERS

GARS is a great Amateur Radio service club and we have the membership and awards to prove it. Our club is a very busy and active club and we use the Monday night net to get the information out to our members. Weekly participation is needed to make our net function well. There is only a small group of very dedicated people that make the net happen each week, and we need more members to volunteer to serve as Net Control Stations (NCS) on a rotating basis.

Out of almost 300 members, there are only eleven primary people who serve as NCS for the GARS net every Monday night. In no particular order, they are:

Norm - WA4ZXV	Kyle - W4KDA	Mitch - N0DIM
Hal - W4IGE	Don - KW4AL	Ray - N4GYN
Sandy - KJ4DRO	John - WB4QDX	Bill KK4AUA
Kevin - KK4WOG	Chuck - KK4TKJ	

As GARS Net Manager (Chuck KK4TKJ), I need 30 people to fill NCS positions. I do plan to post the schedule months in advance. Any conditions will be accommodated that you, as a rotating NCS, need to place on the scheduling of your duties. If your plans change, I can make adjustments for the schedule to work, and I will make those changes happen as soon as I am notified of a problem. As Net Manager, I also send out reminders each week to let the NCS scheduled know he or she is NCS for the next Monday night net. In short, serving as a rotating NCS is a small duty but a great contribution to the club. The “Want, Swap, Sell Information Net” begins promptly at 19:30 every Monday night and runs about 45 minutes. As a scheduled NCS, you will request the assistance of a volunteer alternate NCS each time you have Net Control. Your simple duties will be to tune in to the GARS repeater, read the script, take a few notes and forward the information to me for record keeping.

Please lend a hand and contact me at KK4TKJ@arrl.net. Sign up to help support the effort that makes GARS the great club that it is.

73 and see you on the Nets!

Chuck McCord. KK4TKJ Net Manager



Don't miss the “KNOW IT ALL” Net Wednesday nights, 8:30-9:30 pm



We have moved to a new format. We begin with current events and announcements. Then we Introduce New Technology. Then we have check-ins and general discussion. Post net is Rag Chew format.

Jeff—AB4HF

Everyone is having great fun on this net! Come join us and become a “KNOW IT ALL”.

**TIME: 8:30 every Wednesday evening on the GARS repeater - 2m 147.075 + PL 82.5
6m 53.110 - No Tone
70cm 442.100 + PL 100.0**

ARRL CONTESTING INFO

>>>> NOTE: For more information click the links <<<<

OCTOBER

19-23 [School Club Roundup](#)
31-Nov 1 [EME - 50 to 1296 MHz](#)

NOVEMBER

7-9 [Nov. Sweepstakes – CW](#)
21-23 [Nov. Sweepstakes – Phone](#)
28-29 [EME - 50 to 1296 MHz](#)

DECEMBER

4-6 [160 Meter](#)
12-13 [10 Meter](#)
20 [Rookie Roundup–CW](#)

For more contest info, go to: [http://www.arrl.org/files/file/Contest%20Corral/Contest Corral 1509.pdf](http://www.arrl.org/files/file/Contest%20Corral/Contest%20Corral%201509.pdf)

STATE QSO PARTIES FOR OCTOBER

State/Province	Start Date	End Date	Sponsor Website
California	10/3/2015	10/4/2015	California QSO Party
Arizona	10/10/2015	10/11/2015	ARRL Arizona Section & Catalina Radio Club
Pennsylvania	10/10/2015	10/11/2015	Nittany Amateur Radio Club
Iowa	10/17/2015	10/17/2015	Ottumwa ARC
New York	10/17/2015	10/18/2015	Rochester DX Association
South Dakota	10/17/2015	10/18/2015	South Dakota QSO Party
Illinois	10/18/2015	10/19/2015	Western Illinois Amateur Radio Club

HAMFEST CALENDAR

Southeast US

10/10/2015 | [LaGrange Hamfest](#)

Location: Oaks Baptist Church,
1921 Hamilton Rd. LaGrange, GA
Sponsor: LaGrange Amateur Radio Club.—
[LARC](#)

10/17/2015 | [Al Brock Memorial Hamfest/Tailgate](#)

Location: Rome Senior Center, 406 Riversx-
zide Parkway NE, Rome, GA
Contact: Grover Keith/KA5QFI or
706-766-1118

11/07/2015 | [Georgia Section Convention \(Stone Mountain Hamfest\)](#)

Location: Lawrenceville, GA
Type: ARRL Convention
Sponsor: Alford Memorial Radio Club
Website: <http://www.stonemountainhamfest.com>

11/21/2015 | [Montgomery ARC Hamfest](#)

Location: Montgomery, AL
Type: ARRL Hamfest
Sponsor: Montgomery Amateur Radio Club
Website: <http://www.w4ap.org/news/Hamfest.htm>

01/09/2016 | [TechFest 2016](#)

Location: Lawrenceville, GA
Type: ARRL Convention
Sponsor: Gwinnett Amateur Radio Society
Website: <http://www.GARS.org>



BSA Venture Crew 73 Wants You!

IF YOU are between 14 and 21 years old, enjoy outdoor activities, and have an interest in radio technology, **Venture Crew 73 is for you.**

- Venture Crews are part of the Boy Scouts of America.
- *Venture crew 73 is chartered by the Gwinnett Amateur Radio Society.*
- Venture crew 73 is coed.
- *Meetings are on the second Tuesday of the month, 7:00 pm, at EAA 690 Hangar at:
Briscoe Field - Sports Aviation Complex
Hangar 1, 690 Airport Road
Lawrenceville, GA 30045*
- Crew 73 is a youth-run organization, which means that our Crew President and other youth plan the Crew's outings and activities each month.

We enjoy:

- ◊ *Camping*
- ◊ *Hiking*
- ◊ *Horseback Riding*
- ◊ *Shooting Sports*

- Crew activities usually mix high adventure and the use of Amateur Radio.
- For more information, attend our next meeting or contact:

Steve Back, WB2OGY

Venture Crew 73 Committee Chairman

Phone: 770-712-9069

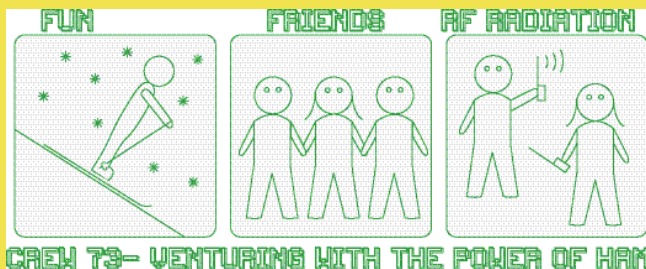
E-mail: committeechair@venturecrew73.org

Jeff Lee, AF4JL

Venture Crew 73 Advisor

Phone: 678-475-3165

E-mail: advisor@venturecrew73.org



G A R S Officers and Committee Chairs

Rick Cobb, N4XYX
President



Mike Weathers, ND4V
Vice President



Nick Doemland, AB4CQ
Secretary



Sid Weaver, N4NQ
Treasurer



Nick Nikley, N0NCQ
Program Manager



Karen Albritton, KI4HPP
Membership Chair



Dave Bruse, W4DTR
Ham Exam Team Leader



David Adcock, KA4KKF
Webmaster, Field Day Chair



Dorothy Jubon, N2DLJ
Public Information Officer



Ralph Pickwick, KJ4CNC
TechFest Chair, Apparel Mgr



Ray Bailey, N4GYN
GARzette Editor



Jeff Cutchins, AB4HF
Multimedia Chair



John Ackermann, N8UR
W4GR Trustee



Eddie Foust, WD4JEM
Repeater Chair



Ralph Pickwick, KJ4CNC
Education Chair



Mike Weathers, ND4V
WAS-Checker, Historian



Chuck McCord, KK4TKJ
Net Manager,



Mike Swiderski, K4HBI
Technical Advisor



DIRECTORS

Kyle Albritton, W4KDA



David Adcock, KA4KKF



Norm Schklar, WA4ZXV



EXTRA! EXTRA!

NOVEMBER MEETING

Annual Home Brew Show & Tell

DECEMBER MEETING

December - Christmas Party

Would YOU like to have **your** QRZ page featured in next month's GARzette? If so, please let me know by writing to me at:

editor@gars.org

Do you have ideas for the GARzette?

What would you like to see or read in the next issue? Perhaps you have a pet subject that you would write about. It doesn't have to be perfect, not even close. You can send me your thoughts, ideas, pictures, comments, objections, or praises, and I can edit them to fit the GARzette style so that everyone can read them and make the GARzette more interesting.

Send all to: editor@gars.org

GARS Recurring Calendar

- ◆ Monthly club meeting is the 2nd Tuesday of the month at 7 pm
- ◆ Every Monday at 7:30 pm: GARS Want, Swap, Sell, and Information Net + 8:30 pm: ARES Training on the GARS 147.075 MHz repeater
- ◆ Every Wednesday at 8:30 pm: GARS Know It All Net on the GARS 147.075 MHz repeater
- ◆ Every Saturday at 7:30 am: GARS Weekly Breakfast, Golden Corral Restaurant, Riverside Drive, Lawrenceville

SEPTEMBER MEETING MINUTES

Rick, N4YXX, called the meeting to order at 7:00pm

First time visitors were welcomed and roundtable introductions were made. Ticket upgrades were recognized.

NOTE: 69 attendees were present

General Business

Sid, N4NQ, gave the treasure's report. Voting took place and the treasure's report was approved

NOTE: Club received \$20.00 donation from the Amazon Smile program. Club earned \$1600.00 for our participation at the Cherokee Rose Dog Show

Karen, KI4HPP, gave the membership report:
GARS has 292 members

NOTE: Rick reminded us that our designation as a "Special Service Club" requires that 50% of membership also be an ARRL member (GARS receives a portion of the sign-up and renewal fee. see Sid, N4NQ for details)

Nick, N0NCQ, announced upcoming programs, in October we'll have Greg Abernathy (AI4UD) present on Lightning Protection & Grounding

November – Annual Home Brew Show & Tell
December - Christmas Party

Net Schedule

- GARS Want, Swap, Sell and Information, Monday's @ 7:30pm
- ARES Training , Monday's @ 8:30pmm
Know-it-All, hosted by Jeff, AB4HF @ 8:30pm

Event Recap

Cherokee Rose Dog Show – thanks to David (KA4KKF) and members from GARS and ARES another successful event is in the books

Upcoming Events

VHF Contest

Date: September 12th Time: 2:00pm to 5:00pm (*Setup at Noon*)
Location: Bogan Park, 2723 North Bogan Road, Buford 30519

DC3 Special Events Station

Date: September 26th and 27th
Location: 600 Briscoe Blvd, Lawrenceville, GA 30046 (near Flying Machine)
NOTE: Sign-up sheets will be available on the GARS website

Maker Faire

Date: October 3rd – 4th
Time: Saturday 10:00am to 5:00pm / Sunday Noon to 5:00pm
Location: Downton Decatur

Jamboree on the Air

Date: October 17 Time: 9:00am to 3:30p,
Location: VFW Post 5255, 368 Grayson Highway, Lawrenceville, GA 30046

Please visit the GARS website at www.gars.org for more details on these and other events

Break

Program

Bob Gerzoff (WK2Y) provided and overview of the "Sark 110 Antenna Analyzer" **NOTE: Rick presented Bob with a certificate of recognition for the program**

Raffle

Meeting concluded at 8:45pm

Nick, AB4CQ, Secretary

SOTA conclusion

(Continued from page 11)

Wrap-up

Start with what you have. If you can get it to the summit, it is good enough to get started.

If you've got nothing suitable, AA NiMh cells are a good start. It is robust technology. You can combine cells with a [power wand](#) or mix real cells with dummy cells in a commercial battery holder to provide the desired power.

To get maximum power for minimum weight, use LiFePO4.

If you want absolute minimum weight, get one of KD1JV's radios and use a 9-volt disposable lithium battery.

Where can I find out more?

Official site: <http://sotadata.org.uk/>

Mailing list: <https://groups.yahoo.com/groups/summits>

K4KPK's site: <http://k4kpk.com/content/sota-menu> E-mail me (K4KPK). My e-mail address is available via <http://www.qrz.com/db/K4KPK>.

See you on the summits!

73, DE [K4KPK](#) / *Kevin*

Bio: K4KPK, Kevin Kleinfelter is Georgia's first SOTA Mountain Goat. He has completed more than 150 activations.

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GARS CALENDAR OF EVENTS FOR OCTOBER 2015

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1	2	3 MAKER FAIRE
4 MAKER FAIRE	5 7:30 - 8:30 pm GARS 2m Net	6 6:30 - 8:00 pm GARS Exec Meeting	7 8:30 - 9:30 pm GARS Know-It-All Net	8	9	10 7:30 - 9:30 am Breakfast at Golden Corral Riverside Drive
11	12 7:30 - 8:30 pm GARS 2m Net	13 5:00 - 6:30 PM Dinner at Flying Machine 7:00 - 9:00pm GARS Meeting	14 8:30 - 9:30 pm GARS Know-It-All Net	15	16	17 7:30 - 9:30 am Breakfast at Golden Corral Riverside Drive
18	19 7:30 - 8:30 pm GARS 2m Net	20	21 8:30 - 9:30 pm GARS Know-It-All Net	22	23	24 HAMCRAM
25	26 7:30 - 8:30 pm GARS 2m Net	27	28 8:30 - 9:30 pm GARS Know-It-All Net	29	30	31

Metro Testing Sessions	Ham Exam Results	Metro Club Meetings
<p><i>GARS publishes Metro Atlanta VE exam schedules as a service and is not responsible for errors or changes. Call and confirm schedules before going. All sessions are walk-in. Take copies of current license and certificate of completed elements with you to all sessions. Find additional sessions online at http://www.arrl-ga.org.</i></p> <p>First Sunday, ODD Months 2 pm (Jan, Mar, May, Jul, Sep, & Nov) VEC: WCARS Braselton Public Utility Building 4986 Highway 53, Braselton, GA Roger Gibson, WB4T (770) 271-4210 or (770) 712-9560 w4rlg@bellsouth.net</p> <p>First Sunday, EVEN Months 2 pm (Feb, Apr, Jun, Aug, Oct, Dec) VEC: WCARS Hall County EOC 470 Crescent Dr. Gainesville, Ga. Perry Roper, KO4RD (770) 536-3056</p> <p>Second Saturday 10:00 AM Alpharetta North Park, Adult Activities Center 13450 Cogburn Rd, Alpharetta, GA 30004 Ian Kahn, KM4IK E-mail: km4ik.ian@gmail.com</p> <p>Second Saturday, ODD Months VEC: ARRL 8:30 a.m. GMC Community Ctr 5325 Leon St. Stone Mountain, GA Frank Haynes, KV4SP (678) 467-3712</p> <p>Second Sunday VEC: W5YI 2 pm Gwinnett County Fire Station #5 3001 Old Norcross Road Duluth, GA 30096 Contact: Dave Bruse, W4DTR E-mail: exams@gars.org</p> <p>Third Saturday VEC: W5YI 2 pm (Except December) Lifeway Church 1654 Atlanta Highway #109 Steve Donellan, N5SMD (404) 520-0368 E-mail: n5smd@comcast.net</p> <p><i>(cont. next column)</i></p>	<p>We had a nice turnout Sunday, September 13, for our VE testing session.</p> <p>Nine people tested and all nine passed exams:</p> <p>6 - New Technician Class</p> <p>1 – New General Class (Technician and General tests passed)</p> <p>1 - Upgraded to General Class</p> <p>1 - Upgraded to Extra Class (from Technician)</p> <p>Thanks to the following VE's for their help: Dave Bruse, W4DTR -CVE Frank Haynes, KV4SP Robert Pursley, WD4KQQ Chuck McCord, KK4TKJ – Co-CVE</p> <p><i>73, Don Bagby, KK4NJM, Co-CVE</i></p> <p>GARS VE Team Leader E-mail: exams@gars.org</p> <p>GARS VE Website: http://groups.yahoo.com/group/GARS_VE_Team/</p> <p>Fourth Tuesday ARRL VEC 7 pm @ United Way Service Center 6279 Fairburn Rd., Douglasville Jessie Clower, KB4WFK (770) 942-6466</p> <p>Fourth Sunday 2:30 pm Georgia Tech VanLeer Elec. Building Rm. W218, 777 Atlantic Dr. See www.w4aql.com Alexander G. Carver (404) 894-2936 acarver@ece.gatech.edu</p>	<p>First Tuesday Kennehoochee ARC Downtown Marietta Fire Station #1, Training Room 112 Haynes Street Marietta, Georgia 30060 Meeting begins at 7:00pm Talk In 146.880(-)</p> <p>First Thursday Atlanta Radio Club Georgia Red Cross HQ 1955 Monroe Dr., Atlanta Meeting is at 7:30pm Talk In -146.820(-) N.E. Georgia ARC Commerce Public Library Meeting is at 6:30pm Talk In - 147.225(+) PL 123.0</p> <p>Second Monday Georgia Tech ARC Room W218 Van Leer Electrical Engineering Bldg. Georgia Tech Campus Meeting at 7:00pm</p> <p>Second Thursday Alford Memorial Radio Club Annistown Road Baptist Church Intersection of Annistown Rd & Spain Rd Stone Mountain Dinner at 6:00pm Meeting at 7:30pm Talk In - 146.760(-)</p> <p>Second Saturday North GA QRP Club Board Room of The Shepherd Center at 2020 Peachtree Rd, NW, Atlanta at 10:00 AM</p> <p>Third Tuesday North Fulton Amateur Radio League Alpharetta Recreation & Parks Dept Alpharetta Adult Activity Center 13450 Cogburn Road Alpharetta, GA 30004 meeting at 7:30pm Talk In - 145.47(-) For more, go to: http://www.gars.org/</p>

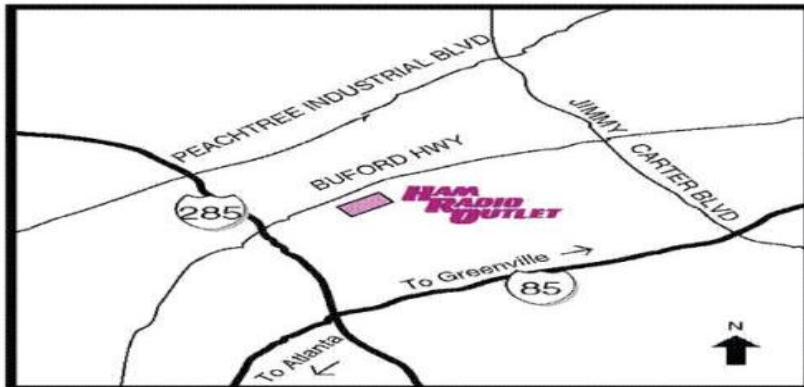
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